

METHOD AND APPARATUS FOR OPTICAL CHANNEL  
SWITCHING IN AN OPTICAL ADD/DROP MULTIPLEXER

ABSTRACT OF THE DISCLOSURE

An optical add/drop multiplexing unit (16, 116) includes a demultiplexer (53, 153) which optically isolates component signals of an optical input signal from an optical input terminal (22, 122). A plurality of switching units (61, 161) can optically couple either of two outputs to either of two inputs. One input of each switching unit receives a respective component signal from the demultiplexer, and the other is coupled to a respective protection input terminal (42, 142) of the multiplexing unit. One of the output terminals of each switching unit is coupled to a respective protection output terminal (43, 143), and the other is coupled to a respective input of a multiplexer (82, 182). The multiplexer has an output coupled to an optical output terminal (23, 123) of the multiplexing unit, and optically combines the signals at its inputs into an optical signal for its output. The multiplexing unit is operable to cause one of the component signals from the input signal to be routed to the further terminal, or to cause a component signal present at the further terminal to be included in the optical signal at the optical output terminal.